

WHAT IS CLAIMED IS:

1. An etched circuit with lightning protection comprising at least one main line connected to a connector adapted to the output of the transmission antenna of the transmission system working at a fixed frequency f_0 or in a narrow frequency band Δf_0 , the circuit comprising a capacitor, wherein said circuit comprises at least one first line with a length l_1 and a width that may or may not be constant, connected to said connector and terminated by a short-circuit that is open-circuited with respect to the main line for the frequency f_0 .
- 5 2. An etched circuit with lightning protection according to the above claim, comprising a second line with a length l_2 and a width that may or may not be constant, connected to the output of the capacitor and terminated by a short circuit that is open-circuited with respect to the main line.
- 10 3. An etched circuit with lightning protection according to the above claim, wherein the widths of the first and second lines are different.
- 15 4. An etched circuit with lightning protection according to one of the above claims, wherein the first line comprises at least one first open stub.
- 5 5. An etched circuit with lightning protection according to one of the claims 2 to 4, wherein the second line comprises at least one second open stub.
- 6 6. An etched circuit with lightning protection according to one of the above claims, wherein the length l_1 of the first line and/or the length l_2 of the second line is a quarter of the wavelength of the frequency used f_0 .
- 20 7. An etched circuit with lightning protection according to one of the above claims, wherein the width and/or the length of the first line and/or of the second line and/or of the first stub and/or of the second stub are determined as a function of the harmonic or harmonics nf_0 (with n as an integer ≥ 2) to be filtered.
- 25 8. A method for the manufacture of an etched circuit with lightning protection, according to one of the claims 1 to 7, comprising the etching of the lines and of the capacitor of said etched circuit on the base of said circuit, the depositing of a film of conductive material and, if necessary, the scraping away of the excess conductive material in order to retain only the conductive material that has been deposited in the etching..
- 30 9. An application of the above-defined etched circuit with lightning protection according to one of the above claims 1 to 7, to the filtering of the second harmonic $2f_0$ and the third harmonic $3f_0$.
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10. An application of the method for the manufacture of an etched circuit with lightning protection according to claim 8 to the manufacture of an etched circuit with a common function of lightning protection and of the filtering of one or more harmonics nf_0 (with n being an integer ≥ 3).